CLAIMS

What is claimed is:

1. A wire bonding method comprising:

(a) bonding a tip portion of a wire to a first electrode by pressing an open end section of a first hole of a first tool against the tip portion of the wire that is passed through the first hole and protrudes outside the first hole; and

(b) bonding a part of a section of the wire that is lead out from the first electrode to a second electrode,

wherein the first tool is passed through a second hole of a second tool,

a width of an open end section of the second hole is greater than a width of the open end section of the first hole, and

the step (b) is conducted by pressing the open end section of the second hole against the part of the wire.

2. A wire bonding method comprising:

(a) bonding a tip portion of a wire to a first electrode by pressing an open end section of a first hole of a first tool against the tip portion of the wire that is passed through the first hole and protrudes outside the first hole; and

(b) bonding a part of a section of the wire that is lead out from the first electrode to a second electrode,

wherein the first tool is passed through a second hole of a second tool, and

the step (b) is conducted by pressing the open end section of the first hole and an open end section of the second hole against the part of the wire.

3. A wire bonding method according to claim 1, further comprising (c) cutting the wire, after the step (b).

4. A wire bonding method according to claim 3, wherein the wire is cut adjacent to the open end section of the second hole in the step (c).

5. A wire bonding method according to claim 4, wherein the step (c) is conducted in a state in which the open end section of the first hole is disposed above the open end section of the second hole, and the wire is lead out from the first hole to reach an area adjacent to the open end section of the second hole.

6. A wire bonding method according to claim 4, wherein the open end section of the second hole is provided with a gradually narrowing taper.

7. A wire bonding method according to claim 2, further comprising (c) cutting the wire, after the step (b).

8. A wire bonding method according to claim 7, wherein the wire is cut adjacent to the open end section of the first hole in the step (c).

9. A wire bonding method according to claim 8, further comprising feeding out the wire such that the tip portion of the wire protrudes outside the first hole, after the step (c).

10. A wire bonding method according to claim 8, wherein the open end section of the first hole and the open end section of the second hole define a continuous plane surface when arranged to have an identical height.

11. A wire bonding method according to claim 1, wherein the first electrode is a pad of a semiconductor chip, and the second electrode is a lead of a package of a semiconductor device.

12. A wire bonding method according to claim 2, wherein the first electrode is a pad of a semiconductor chip, and the second electrode is a lead of a package of a semiconductor device.

13. A wire bonding apparatus comprising:

first and second tools for bonding a wire to first and second electrodes,

wherein the first tool includes a first hole through which the wire is passed, and an open end section of the first hole that is pressed against a tip portion of the wire that protrudes outside the first hole, and

the second tool includes a second hole through which the first tool is passed, and an open end section of the second hole that is pressed against a part of a section of the wire that is led out from the first electrode, wherein the width of the open end section of the second hole is greater than the width of the open end section of the first hole.

14. A wire bonding apparatus comprising:

first and second tools for bonding a wire to first and second electrodes,

wherein the first tool includes a first hole through which the wire is passed, and an open end section of the first hole that is pressed against a tip portion of the wire that protrudes outside the first hole, and

the second tool includes a second hole through which the first tool is passed, and an open end section of the second hole,

wherein the open end section of the first hole and the open end section of the second hole are pressed against a part of a section of the wire that is lead out from the first electrode.